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ABSTRACT

This paper presents a meta analysis of the literature on the role of gender in special education teacher burnout. The presentation of a theoretical framework reviews theoretical models of burnout, especially Maslach's model, and discusses the stages and constructs of burnout. A preliminary review of the literature finds an inconsistent relationship between constructs of burnout and gender. The meta analysis of 46 studies of special educator burnout that had sufficient data for further quantitative analysis addressed 23 research questions. Very small, but generally positive, effect sizes were found for the following relationships: personal accomplishment related to gender; burnout related to gender; frequency of personal accomplishment related to gender; enthusiasm related to gender; intensity of emotional exhaustion related to gender; frequency of emotional exhaustion related to gender; and alienation related to gender. Generally negative effect sizes were found for intensity of depersonalization related to gender and frequency of depersonalization related to gender. Recommendations address methodological aspects of further meta analyses of the research. (Contains approximately 150 references.) (DB)

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Women and Special Educator Burnout: A Research Synthesis

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Women and Special Educator Burnout: A Research Synthesis

Would you apply for the following job?

Notice: Participation in this process may be hazardous to your health. This process involves conflict, stress, and confusion which when experienced in prolonged, excessive dosages have been determined to cause emotional disorders, job dissatisfaction, and professional burnout.

Rezmierski (as cited in Zabel, Boomer, & King, 1984, p. 215) gave this description for the role of a special educator. Now add to this description the known stresses associated with belonging to the female persuasion. The possibilities for understanding women and special educator burnout seem almost endless.

Objectives

It comes as no surprise that special education is a high-need field. In its most recent report to Congress, the United States Department of Education (1997) cites that 26,000 persons teaching special education are not certified to do so, and almost 3,700 special education jobs are actually vacant. Boe, Cook, Kaufman, and Danielson (1996) cite five evidenced reasons for the shortage of special education teachers: high attrition rate of these teachers, large number of teacher transfers from special education to general education fields, increase in the number of special education jobs needed in the past (these researchers found that within eight years, the number of new special education jobs increased 19%, over 7,000 jobs per year), continued increase of new special education jobs in the future, and decline in graduates from preparatory programs in special education. These authors go on to say that the special education teacher shortage is now a problem of both "quality and quantity" that has reached "pervasive and critical

dimensions" (p. 2). Furthermore, the number of school-aged children is continuing to rise, as is the number of students who are eligible for special education (Cooley & Yovanoff, 1996; Frank & McKenzie, 1993). Also compounding the problem is the extremely high attrition rate for special education teachers, which in some parts of the country has reached up to 30%. Burnout and its accompanying characteristics have been recognized as correlates to this high attrition rate (Cooley & Yovanoff, 1996).

A great deal of literature has been written on special education and burnout, each study with its own unique findings and viewpoints. After a thorough search of the literature, only one study was found that attempted to synthesize this large amount of important information. This meta-analysis (Jarvis, 1988) is over ten years old, meaning that a great deal of new research has been made available since its publication. A current meta-analysis of studies concerning burnout and special educators is greatly needed. In addition, the previous synthesis included only research on teachers of special education; no consideration was given to other certified personnel within the special education field. A thorough investigation of the literature involving these three roles (teachers, assessment personnel, administrators) is long overdue. As a further target area of study for this inquiry, the role of gender as it affects special educator burnout was added. The need for this type of study can best be explained by Hoy (1978) when he says, "There is little in the way of application, improving or building on others' work. We rarely base new work on existing work" (p. 5). Campbell (1979) concurs with this opinion; he believes that in education there has been "little cumulative building of knowledge in the field" (p. 10). Thus, this study will synthesize all of the available research on the role

gender plays in special educator burnout, thereby facilitating the ability to see trends in the research and to draw conclusions on this important topic.

Theoretical Framework

Many scholars have attempted to define the construct of burnout. Originating a mere twenty-five years ago with Freudenberger's (1977) research in the helping professions, burnout remains a relatively new area of study in the social sciences (Banks & Necco, 1990; Stout, 1987). Freudenberger (1977) first coined the term "burnout," using it to describe persons who appear to be depressed with their jobs. Burnout can be identified through the appearance of fatigue, persistent colds, headaches, insomnia, and exhaustion; these signs are caused by over-exertion of a person's energy, strength, or resources. Behavioral indicators of burnout such as anger, irritation, cynicism, paranoia or drug use may also be apparent (Stout, 1987). Blase broadens this definition of burnout so that it includes any adverse reaction that occurs from stress in the workplace (as cited in Dedrick & Raschke, 1990).

Most authors tend to agree that burnout refers to an extreme form of job stress (Cherniss, 1988; Dedrick & Raschke, 1990; Maslach, 1982; Wisniewski & Gargiulo, 1997); in fact, some researchers go so far as to make these two terms, job stress and burnout, synonymous (Male & May, 1997). Beer and Beer (1996) state that burnout results from chronic stress in the workplace. Christina Maslach (1982), perhaps the most widely accepted authority on burnout, describes this condition as "a response to the chronic emotional strain of dealing extensively with other human beings, particularly when they are troubled or having problems" (p. 3); therefore, in Maslach's opinion, burnout can be defined as "one type of stress" (p. 3).

While often defining burnout by its characteristics, most researchers do agree that burnout can be attributed to some type or combination of types of external or environmental causes (Morgan & Krehbiel, 1985). Other researchers, however, explain burnout not as a form of stress, but rather as the "chronic inability to cope with stress" (Greer & Greer, 1992, p. 169). In a study by Torelli and Gmelch (1992), stress was found to be the most common predictor of burnout. Burnout is also frequently defined by the appearance of its symptoms: feeling irritable, tired, angry, and/or frustrated (Gold, 1989); becoming detached, cynical, or apathetic are also symptoms often used in defining burnout (Guglielmi & Tatrow, 1998). Hudson and Meagher (1983) cite Freudenberger's description of burnout as "a state of fatigue or frustration brought about by devotion to a cause, way of life, or relationship that failed to produce the expected reward" (p. 47). These authors further explain that burnout usually affects persons who are highly motivated, hard-working, and idealistic in the workplace. The failure of this idealism brings about the feelings most often associated with burnout.

Obviously, then, there is no clear or singular definition for the construct of burnout. For this reason, in subsequent chapters of this inquiry the term burnout will denote the author-identified construct of burnout as declared in the population of primary studies addressing burnout among special educators. Distinct constructs of burnout, such as emotional exhaustion, depersonalization, and personal accomplishment (as described by the Maslach Burnout Inventory, detailed in the upcoming section of this inquiry) will be stated as they appear in this population of primary studies.

Theoretical Models of Burnout

Maslach's Model of Burnout. By far the most widely used and accepted theoretical model of burnout is the model created by Christina Maslach. Measured according to the Maslach Burnout Inventory, this model focuses on three constructs: emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach, 1982). The inventory contains twenty-two statements about the workplace/job, and participants are to score each statement twice, once for intensity and once for frequency. *Intensity* scales range from one, indicating very mild or barely noticeable, to seven, very strong or major. *Frequency* scales range from one, few times a year, to six, every day. Burnout is indicated by higher scores on the depersonalization and emotional exhaustion scales and by lower scores on the personal accomplishment scale. It is important to note, however, that Maslach's theoretical model of burnout does not indicate the absolute presence or absence of burnout; rather, it describes a person's place on a burnout continuum, such as "more or less" burned out (Crane & Iwanicki, 1986). Zabel and Zabel (1983) go on to explain that Maslach's burnout model demonstrates burnout not as an either-or state of being, but rather as a matter of degree. Freed (1994) expounds further upon this idea by describing burnout as a continuous variable (rather than dichotomous), measured in terms of low, moderate, or high rates of experience.

Other Models of Burnout. Few researchers other than Maslach have developed such thorough models of burnout and its characteristics. Those researchers who have, however, tend to develop models that describe burnout as a series of stages (Harmon-Vaught, 1985). For example, Edelwich and Brodsky (1980) developed a four stage

model of burnout. This model examines burnout as it evolves from enthusiasm (stage one) to stagnation (stage two), frustration (stage three), and apathy (stage four).

According to Jones and Emanuel (1981), the stages of burnout follow a more chemical analogy. These authors describe burnout through the following stages: heating up (stage one), boiling (stage two), and explosion (stage three).

Similarly, Spaniol (1979) uses the terminology of physical burns to describe burnout. First degree burnout involves brief periods of being tired, grouchy, anxious, and ambivalent. Second degree burnout involves longer bouts of these same feelings. With third degree burnout, physical manifestations began to occur, including headaches, ulcers, and back aches.

Yet another stage approach to burnout can be found in the work of Veninga and Spradley (1981). In this model, stage one is called the "honeymoon," in which one is enthusiastic and excited about a job. The second stage is called the "fuel shortage," in which going to work requires a conscious effort and dissatisfaction with one's job begins to occur. Although physical manifestations of stress begin to occur during stage two, stage three finds these physical symptoms becoming chronic conditions. During the next stage, the "crisis" stage, physical symptoms become perilous, and psychological symptoms such as cynicism, apprehension, and disappointment reach extreme proportions. The final stage of this model results in final sense of defeat, a total loss of control, and the termination of one's position at work.

A final stage model of burnout is attributed to Baldwin (as cited in Hudson & Meagher, 1983, p. 51). Baldwin's model contains five stages of burnout:

Stage I: Intimate Involvement (new job, overinvolvement)

Stage II: Exhaustion/Questioning (physical and emotional fatigue plus "grass is greener" thoughts)

Stage III: Balancing Act (conscious/unconscious choices causing adequate or inadequate coping mechanisms to develop)

Stage IV: Withdrawal/Disappointment (coping devices fail thus affecting work and home)

Stage V: Terminal Cynicism (self-preservation ["me"] over self-management)

Constructs of Burnout. Because Maslach's theoretical model of burnout is by far the most accepted explanation of its kind, the three constructs found in this model are also the most widely used burnout constructs. These constructs include emotional exhaustion, depersonalization, and personal accomplishment. The three subscales of the Maslach Burnout Inventory are quite distinct. Emotional exhaustion refers to cases of burnout in which a person feels emotionally (or psychologically) tired or worn out, with little or no energy. Depersonalization describes a condition in which a person feels insignificant or meaningless. His or her reactions to other persons are less caring and more harsh than before. Reduced personal accomplishment is used to explain a person's feelings of inadequacy, futility, or dissatisfaction in the workplace (Crane & Iwanicki, 1986; Gmelch & Gates, 1998). All three subscales are measured according to frequency and intensity, both of which have been found to vary according to the subject's age, gender, marital status, and level of education (Crane & Iwanicki, 1986). Interestingly enough, older teachers who have been in the classroom for a longer period of time

demonstrate lower levels of burnout than younger, less experienced teachers (Banks & Necco, 1990; Crane & Iwanicki, 1986; Greer & Greer, 1992).

Relationship of Burnout and Gender

The study of gender differences has been of great interest to researchers both within and outside the domain of education. In many research studies, scholars have claimed significant gender differences on various criterion variables, yet the literature reviewed for this inquiry is quite inconsistent in its findings on this topic.

Crane and Iwanicki (1986), Fimian and Blanton (1986), and Harmon-Vaught (1985) all determined a significant relationship between gender and burnout. More specifically, Lamonica (1983) and McIntyre (1981) established correlations that suggest a stronger relationship between males and burnout than between females and burnout. Swenson-Donegan's (1990) findings also supported this relationship; in this author's research, males particularly experienced stronger feelings of depersonalization than their female counterparts. Females, likewise, recorded higher scores of personal accomplishment than males.

Some researchers, however, found no relationship between gender and teacher burnout. For example, studies by Kerr (1984) and Olson and Matuskey (1982) found no relationship between burnout and gender. Weak and/ or insignificant relationships between burnout and gender were also found by Beck and Gargiulo (1983) and Freed (1994). Surprisingly, a number of studies did not even analyze the effect of gender upon job burnout among special educators.

In summary, the literature reviewed for this inquiry suggests an inconsistent relationship between constructs of burnout and gender.

Data Sources

Objectives and Research Questions

Using the techniques for meta-analysis described by Hunter and Schmidt (1990), six main objectives were accomplished in this study. First, all primary studies from the databases that dealt with burnout among special educators and contained adequate quantifiable data were identified. (Nine major databases were used to identify these primary studies, including Dissertation Abstracts International, ERIC, PsycInfo, Education Abstracts, Wilson, Article First, Social Sciences Abstracts, and *Educational Administration Abstracts*.) Second, the research hypotheses for each of these primary studies were specified, along with the target population, burnout constructs, and predictor constructs used in the development of these hypotheses. Third, the statistical hypotheses and inferential rules needed for synthesizing the data found in each research hypothesis were specified. Fourth, population effect sizes for each research hypothesis were estimated. Fifth, moderator variables relative to each research hypothesis were identified. Sixth, the stability of each population effect size was explored.

Additionally, these six objectives yield 23 research questions. The first group of 13 research questions described and classified the actual special educator burnout hypotheses investigated in the synthesis population. Answers to these 13 questions fulfilled the aims of the first two research objectives. Two research questions comprised the second group, which described the empirical data provided in each primary study and thereby satisfied the third research objective. The final eight research questions focused on the quantitative synthesis of findings that can increase current knowledge on special

educator burnout and gender; answers to these questions satisfied the last three research objectives.

Taken collectively and addressed sequentially, these 23 research questions guided both the theoretical and empirical aspects of this study. Answers to these questions synthesized what was learned from the research on gender and special educator burnout, as well as provided new data necessary to develop recommendations for improving future research on job burnout.

Methodology

The design of this inquiry, modeled after Thompson's (1997) study on job satisfaction, is a 14-stage model, outlined in Table 1. (See Edmonson, 2000, for an elaborated description of the model.) As a general reference, a group of behavioral science researchers specifically trained in meta-analysis independently classified and coded primary studies and research hypotheses, examined archived data, and estimated effect sizes to ensure reliability of the methods used in this study. Discrepancies were resolved with the assistance of additional trained researchers.

TABLE 1

Design of the Inquiry

Stage 1: Developing the theoretical framework	Stage 8: Identifying the effect sizes
Stage 2: Specifying the population	Stage 9: Describing the primary studies
Stage 3: Designing the classification system	Stage 10: Describing the effect sizes
Stage 4: Designing the coding system	Stage 11: Estimating the parameters
Stage 5: Coding the data	Stage 12: Elaborating the moderator variables
Stage 6: Archiving the coded data	Stage 13: Assessing the stability of findings
Stage 7: Constructing the research hypotheses inventory	Stage 14: Specifying the recommendations

Findings

470 primary studies were identified in the search of eight databases as addressing burnout among special educators. Of these 470 primary studies, 230 were classified as actually addressing special educator burnout, as declared by the author; of these 230 studies, 123 presented quantitative findings. Of the 123 primary studies addressing burnout among special educators and containing empirical findings, only 46 studies contained sufficient data for further quantitative synthesis, meaning that only 37% of studies on special educator burnout contained Pearson product-moment correlations or statistical data sufficient to derive such correlations. 63% of the available primary studies contained insufficient data to be included in this inquiry. The number of quantitative studies providing insufficient data for synthesis demonstrates an obvious weakness in data reporting standards in current research publications.

Special education teachers represented the target population in 37 of the 46 (80.43%) primary studies that comprised the synthesis population, followed by special education directors in five primary studies (10.87%). Public K-12 schools represented the largest target population subgroup in 24 of the 46 synthesis population primary studies. All 46 primary studies from the synthesis population employed the individual as the unit of analysis. In the 46 primary studies that provided sufficient information for quantitative synthesis, 898 distinct, non-overlapping research hypotheses which specified an expected relationship between distinct burnout constructs and distinct predictor constructs were investigated. Because many of the 898 distinct research hypotheses were investigated multiple times in one or more primary studies, a total of 1605 research hypotheses and population effect sizes were ultimately analyzed.

Effect Sizes

In order to fully understand the data discussed in this study, an understanding of effect size measurements must first be achieved. Effect size, according to Cohen (1988) refers to "the degree to which the phenomenon is present in the population" (p. 9). Stated conversely, an effect size means "the degree to which the null hypothesis is false" (p. 10). In statistical terms, then, the null hypothesis specifies that an effect size will be zero; likewise, the alternative hypothesis describes an effect size of any non-zero value, representing the degree to which said phenomenon is present within the population under study.

Understanding the effect size described above is important for effective statistical inference. An effect size must be a pure or dimensionless number, meaning that it is not recorded according to any set unit of measurement. This dimensionless characteristic serves a dual purpose. First, a dimensionless effect size represents a standardized measure, rather than representing any one specific unit of measure. Second, a dimensionless effect size can be synthesized and/or cumulated across studies (Cohen, 1988).

The importance of this characteristic can be demonstrated with the use of a t-test for means. The difference between the means of two independent samples ($m_1 - m_2$), standardized by being divided by the within-population standard deviation (s_p), can be represented by the effect size index (g). This relationship is demonstrated below:

$$g=(m_1 - m_2)/s_p.$$

Because this equation generates a measure expressed in units of standard deviation, this measure can be synthesized and/or cumulated across studies.

The importance of an effect size representing a dimensionless measure can also be demonstrated through the Pearson product moment correlation, r. The Pearson r represents the strength of a relationship between two variables. It does not represent any type of units, such as points on a test score or dollars of an expenditure. Therefore, the effect size expressed with this statistic is again able to be synthesized and cumulated across studies.

In addition to being dimensionless, an effect size can also demonstrate practical significance. Practical significance implies that a relationship or difference is large enough to have meaning or be deemed important by the researcher (McNamara, 1994). Because an effect size represents the strength of a relationship between two variables, it therefore also has the capacity to demonstrate practical significance.

For example, an effect size represented by the Pearson product moment correlation can be squared (r^2) to numerically represent the amount of variance in a criterion variable that is explained by the predictor variable. Thus, a Pearson r effect size of .05 generated for the relationship between burnout and experience means that in this study, experience accounts for 25% of the variance found in burnout. Whether such a statistic has practical significance depends on how important this finding is to the researcher and what implications it has for practice. Although effect sizes are often categorized as being small, moderate, or large (Cohen, 1988; McNamara, 1994), the actual practical significance of an effect size is highly individualized. What might be deemed a small effect size may have important educational implications and therefore might have great practical significance. Although statistical significance can be quite meaningful in a study, it does not in and of itself denote the presence or absence of

practical significance. It is important, therefore, for a researcher to determine before conducting a study at what level the findings will be considered practically significant, regardless of whether results are statistically significant or not.

A third important characteristic of effect sizes is their ability to influence statistical power (Cohen, 1988; McNamara, 1994). A predetermined effect size, along with sample size, alpha level, and directionality of the alternative statistical hypothesis, can be used to develop a powerful study or to evaluate the power of a previously published study.

Women and Special Educator Burnout

Gender was studied in 72 of the 1605 research hypotheses analyzed for this inquiry, meaning that this construct accounted for 4.49% of all predictor constructs studied in the relationship between burnout and special educators. Specifically, gender was studied in conjunction with the following burnout constructs (number of times each hypothesis occurred is indicated in parentheses): total emotional exhaustion (7 research hypotheses), total depersonalization (7 research hypotheses), total emotional exhaustion (7 research hypotheses), burnout (7 research hypotheses), frequency of personal accomplishment (7 research hypotheses), intensity of personal accomplishment (8 research hypotheses), intensity of emotional exhaustion (7 research hypotheses), frequency of emotional exhaustion (7 research hypotheses), intensity of depersonalization (6 research hypotheses), frequency of depersonalization (6 research hypotheses), enthusiasm (1 research hypothesis), frustration (1 research hypothesis), and alienation (1 research hypothesis).

Intensity of Personal Accomplishment related to Gender. Recall from the previous paragraph that this research hypothesis specifying an expected relationship between the intensity of personal accomplishment and gender appeared eight times in the synthesis population of primary studies. Gender is defined as male=1 and female =2. Each of these eight occurrences utilized the individual unit of analysis. These eight occurrences necessarily yielded eight effect sizes, and each of the effect sizes was originally reported as a Pearson product moment correlation in the primary study. These effect sizes and the meta-analytic calculations which serve to answer research questions 16-20 are presented in Table 2. This analysis revealed a range of correlations from 0.81 to –0.09, with a median effect size of 0.215. Based on the definition that male=1 and female =2, this effect size indicates that females are likely to experience more intense personal accomplishment than males. This analysis also revealed that the estimated population effect size is ave (r_s) = 0.12436, indicating a small but noticeable difference between the median and the weighted average. The average correlation, using Cohen's (1988) guidelines, is a small effect size, indicating a small positive relationship between intensity of personal accomplishment and gender from primary studies in this synthesis population; again, these statistics indicate that females experience more intense feelings of personal accomplishment than do males. Squaring this average correlation yields a coefficient of determination of 0.01547, indicating that 1.55% of the variation in intensity of personal accomplishment is accounted for by the variation in gender.

The analysis in Table 2 also revealed that the estimated variance of the sample effect sizes var (r_s) = 0.04818, the estimated variance of the sample effect sizes due to sampling error var (e) = 0 .00963, the estimated variance of the true population effect size

var (r_p) = 0.03855, and the standard deviation of true population effect size sd (r_p) = 0.19634. Several observations can be gleaned from this analysis. First, the sampling error variance (0.00963) is a relatively small component of the variance of the sample effect sizes (0.04818); specifically, it accounts for 19.99% of the variance of the sample effect sizes, meaning that 80.01% of the variance is not due to sampling error and must therefore be due to some other factor. Second, because the sampling error variance is relatively small, the variance and standard deviation of the true population effect size are relatively large, further suggesting the possibility of a moderator variable. However, because of the large sample size associated with the McIntyre (1981) study, this variation is possibly due to sample size. Third, when comparing the average effect size (0.12436) to the standard deviation of the true effect size (0.19634), it is seen that the average effect size is 0.633 standard deviations above zero (0.12436/0.19634 ≈ 0.633). Hunter and Schmidt (1990) point out that an average effect size that is more than two standard deviations above or below zero indicates a universally positive or negative relationship between two variables, depending on the sign of the average effect size. Thus, the relationship between intensity of personal accomplishment and gender is not strong enough to be considered a universally positive or negative relationship. The data supporting this conclusion are presented in Table 2.

Table 2

Research Hypothesis Four hundred eighty-nine
Intensity of Personal Accomplishment Related to Gender
Effect Sizes with Individual Units of Analysis

(N=8)

Author (Year)	Target Population	Sample Size	Effect Size
Cooper (1986)	Special Education Directors	84	0.24
Goodall (1986)	Special Education Teachers (Emotionally Disturbed)	62	0.04
Goodall (1986)	Special Education Teachers (Learning Disabaled)	45	0.81
Goodall (1986)	Special Education Teachers (Mentally Retarded)	54	-0.09
Goodall (1986)	Special Education Teachers (Behaviorally Disordered)	51	0.19
McIntyre (1981)	Special Education Teachers	399	-0.01
Cadavid (1986)	Special Education Teachers	91	0.31
DePaepe et al. (1985)	Special Education Teachers	27	0.48

Estimate of population effect size [ave(r_s)] = **.12436**
ave (r_s) = $\Sigma[N_i r_i]/ \Sigma N_i$

Estimate of variance of sample effect sizes [var (r_s)] = **.04818**
var (r_s) = $.\Sigma N_i[r_i - ave(r_s)]^2/\Sigma N_i$

Estimate of variance of sample effect sizes due to sampling error [var (e)] = **.00963**
var (e) = [1-ave $(r_s)^2]^2$ / [ave (N) – 1]

Estimate of variance of true population effect size [var (r_p)] = **.03855**
var (r_p) = var (r_s) - var (e)

Estimate of standard deviation of true population effect size [sd (r_p)] = **.19634**
[sd (r_p)] = $[var (r_p)]^{1/2}$

Other burnout constructs related to gender. A similar but less detailed look at the relationship between gender and special educator burnout among other research hypotheses revealed results that were also far from telling. Effect sizes generated for these relationships were generally small to negligible, indicating that there is a very limited relationship between special educator burnout and gender. The amounts of explained variance for each hypothesis were also very small. In other words, these data indicate that gender is a very weak predictor of burnout among special educators. For example, the effect sizes for the relationship between gender and emotional exhaustion ranged only from 0.26 to –0.09; 0.26 was by far the largest effect size, with the next largest effect size indicator being recorded as 0.06. The relationship between depersonalization and gender yielded a similar range of effect sizes, with the largest effect size being 0.44 and the smallest being –0.21. Although this range appears large, the 0.44 was an outlying number that was noticeably larger than other effect sizes. No moderator variable could be identified for this statistic, however. Other ranges of effect sizes for relationships between special educator burnout constructs and gender include

Personal accomplishment related to gender: 0.20 to –0.18

Burnout related to gender: 0.37 to –0.18

Frequency of personal accomplishment related to gender: 0.45 to -.016

Intensity of emotional exhaustion related to gender: 0.26 to –0.23

Frequency of emotional exhaustion related to gender: 0.48 to –0.14

Intensity of depersonalization related to gender: 0.15 to –0.38

Frequency of depersonalization related to gender: 0.05 to –0.45

Enthusiasm related to gender: 0.11

Frustration related to gender: 0.01

Alienation related to gender: 0.04

Discussion

As the above statistics indicate, the relationship between constructs of burnout and gender are generally quite small. Numbers that are not small may appear, but these numbers are quite inconsistent; the amount of unexplained variance further indicates that these numbers may likely be representations of variation due to factors other than gender. Although most statistics do surprisingly indicate that women experience less depersonalization, less emotional exhaustion, and more personal accomplishment than do males, the statistical data for these conclusions are indeed quite weak.

A number of recommendations have been generated from this study, including suggestions for indicators of explained variance. This recommendation directly relates to the data generated for special educator and burnout. The coefficient of determination is used to describe the amount of explained variance in a study (McNamara, 1991). The amount of explained variance can therefore be used as an indicator of practical significance: a large amount of explained variance indicates practically significant findings, whereas a small amount of explained variance – meaning that a large amount of variance is unexplained by the variable being studied – would indicate low practical significance. Indicating the amount of explained variance in a study, then, would be beneficial to understanding the practical significance of research findings. Although the authors of burnout studies may have indicated a statistically significant relationship between burnout and gender, the data are so small and inconsistent that no practical significance can actually be noted.

A second important recommendation for this study involves the study of special education administrators and other professionals. The study of burnout among special educators needs to include special education administrators. Of the 1605 effect sizes reported or derived in this inquiry, only 23.6% dealt with the target population of administrators (i.e. special education directors). Likewise, only five of the 46 primary studies, or 10.87%, presented findings for special education directors. Because of the importance of administrators in special education, this lack of research regarding this target population should be addressed. The study of burnout among special education administrators should be of primary concern for future research studies, so that a greater understanding of this facet of educational administration can occur.

Likewise, a number of other special education professionals were overlooked in the research addressing burnout among special educators. Of the 1605 effect sizes, 15 (0.9%) were reported for school psychologists; 27 (1.7%) were reported for generic special educators from multiple categories that included therapists who worked in special education (speech therapists, physical therapists, occupational therapists). No primary studies were found that addressed burnout among special education diagnosticians, although these professionals play a very large and important part of special education. The lack of research addressing special education professionals other than teachers and administrators should clearly be addressed.

This quantitative synthesis of research addressing gender and special educator burnout fulfilled three important advantages. First, it synthesized existing empirical research on gender and special educator burnout by cumulating research findings on burnout constructs. Second, this inquiry extended knowledge of gender and special

educator burnout. This extension took place through a number of processes: the identification and evaluation of burnout constructs; the meta-analysis of frequently occurring burnout constructs, which indicated the direction and magnitude of these burnout constructs to a number predictor constructs; the analysis of moderator variables that played a role in the relationship between burnout constructs and predictor constructs; the time series analysis that indicated how the relationships between burnout constructs and predictor constructs have changed over time. The third advantage of this inquiry is its ability to serve as a model for future quantitative synthesis of organizational variables. This inquiry, its processes, and its findings were all found to be both valid and reliable, and they offer a sound model for conducting additional meta-analytic studies.

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